SUPPORT FOR THE AMENDMENTS

Claims 2 and 4-26 are herein canceled.

Claim 27 is new and is supported by Claim 10.

No new matter is believed added to this application by entry of this amendment.

Upon entry of this amendment, Claim 27 is active.

REMARKS/ARGUMENTS

The claimed invention is directed to a process for the manufacture of a sol composition for coating of plastic lenses having good warm water resistance, good weather resistance, good light resistance and a high refractive index.

The claimed invention addresses this problem by providing the method for producing a sol as described in Claim 27 of the presently claimed invention. No such method is disclosed or suggested in any the cited references.

Applicants respectively note that the claimed method includes a hydrothermal treatment of the stannic oxide sol. A hydrothermal treatment is described on page 50, lines 16-23 as follows:

> ". . . employing a stannic oxide sol subjected to a hydrothermal treatment (autoclave treatment) as a material, . . ., it is possible to carry out a hydrothermal treatment at a temperature of from 100 to 300°C for 0.1 to 200 hours."

Further, Applicants have described the effect of the hydrothermal treatment beginning on page 48, line 27 and continuing to page 49 of the specification as follows:

> "Each of the above sols can be classified into a case where stannic oxide is not treated in an autoclave and a case where it is treated in an autoclave. The sol in the latter case provides excellent performance of the former, and further, a coating film obtained by coating each sol as a coating composition on a substrate and baking it has a high refractive index (refractive index of from 1.8 to 1.9 as calculated from the coating film."

This result is demonstrated by comparison of Examples 5 and 6 on pages 78 -83 of the specification. In Example 5, alkaline stannic sol A-1-2, not hydrothermally treated, was used, while in Example 6, hydrothermally treated stannic sol A-1-4 was used. Otherwise the two examples are the same. The index of refraction obtained with the coating of Example 5 is 1.87, while that of Example 6, is 1.92. This data shows an unexpected and significant (2.6%) increase in index of refraction obtained in the dried sol according to the claimed invention where hydrothermal treatment of the stannic oxide aqueous sol is carried out prior to mixing with the zirconium oxide. No such process, including hydrothermal treatment of the stannic oxide sol prior to mixing with zirconium oxide, is disclosed or suggested in any of the cited references.

Applicants respectfully note that Claim 10 is herein canceled and replaced with Claim 27 which includes all the description of Claim 10, using wording and format consistent with U.S. patent law practice. The rejections of Claim 10 are addressed in view of Claim 27 in the following.

The rejection of Claim 10(27) under 35 U.S.C. 103(a) over Watanabe et al. (U.S. 5,460,738) in view of Suzuki (EP 1077236 equivalent to U.S. 6,626,987)(Suzuki '987) is respectfully traversed.

Watanabe describes a process for producing a sol including:

> "(a) a step of mixing an aqueous sol of stannic oxide containing particles of stannic oxide . . . and an aqueous solution containing an oxyzirconium salt . . .;
> (b) a step of **heating the mixed solution obtained in step (a)** at a temperature of from 60° to 200°C. for 0.1 to 50 hours to form an aqueous sol of stannic oxide-zirconium oxide composite . . .;" (Col. 2, line 66 to Col. 3, line 9) (Bold added).

Nowhere does this reference disclose or suggest hydrothermal treatment of the stannic oxide sol prior to mixing with the zirconium oxide as according to the claimed invention.

Watanabe describes obtaining the stannic oxide colloid particles as in Col. 3, lines 47-52, as follows:

> "The colloidal particles of stannic oxide to be used for the step (a) can readily be prepared in the form of a sol of colloidal particles having a particle size of about 4 to 50 nm by a conventional method such as an ion exchange method, a peptization method, a hydrolysis method or a reaction method."

Watanabe describes a treatment of the mixture of stannic oxide and zirconium oxide. Nowhere does this reference disclose or suggest a hydrothermal treatment of the stannic oxide before mixing with zirconium oxide, according to the claimed invention.

The Office has acknowledged that this reference "does not expressly disclose subjecting the stannic oxide solution to the hydrothermal treatment prior to addition of the oxyzirconium salt . . ."(Official Action dated November 7, 2008, page 5, lines 4-6).

Citing MPEP 2144.04(IV)(C), the Office has stated:

> ". . . however, at the time of the invention, it would have been obvious to a person of ordinary skill in the art, since it has been held that the selection of reversing the steps of a prior art process is *prima facie* obvious; the selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results; and any order in mixing ingredients is *prima facie* obvious."

Applicants respectfully call the Examiner's attention to MPEP 2144.04 which states:

> "If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection."

As discussed above, Applicants have shown above, in comparison of Examples 5 and 6 that a hydrothermal treatment of the of the stannic oxide aqueous sol carried out prior to mixing with the zirconium oxide results in an unexpected increase in refractive index of the prepared coating obtained. Nowhere does Watanabe disclose or suggest such an increase.

Moreover, Applicants respectfully submit that according to the claimed invention, the mixture of the hydrothermally treated stannic oxide aqueous sol with an aqueous solution of

an oxyzirconium salt is also heat treated. Applicants respectfully submit that the claimed invention comprises two heat treating steps and therefore, cannot constitute a reversal of steps as the Office has alleged. In contrast, Applicants have discovered that the additional heat treatment of the stannic oxide aqueous sol leads to the results described above.

The Office has acknowledged that Watanabe does not describe "expressly coating the SnO_2/ZrO_2 composite particles with an alkylamine/Sb_2O_5 compound"(Official Action dated November 7, 2008, page 5, lines 13-14) and cites Suzuki '236 to show the acknowledged deficiency.

However, Applicants respectfully submit that the secondary reference does not disclose or suggest a hydrothermal treatment of the stannic oxide before mixing with zirconium oxide, according to the claimed invention, and therefore does not cure the basic deficiency of Watanabe.

Suzuki ('236) describes beginning at Col. 5, line 66 (U.S. 6,626,987) and continuing to Col. 6, the following:

> "Colloidal particles (a) of a metal oxide having primary particle diameters of from 2 to 60 nm may be produced by a known method such as an ion exchange method, a peptization method, a hydrolysis method or a reaction method."

Applicants respectfully submit that nowhere does this reference disclose or suggest a hydrothermal treatment of the stannic oxide before mixing with zirconium oxide. Accordingly, the cited combination of references can neither anticipate nor render obvious the claimed invention. Withdrawal of the rejection of Claim 10(27) under 35 U.S.C. 103(a) over Watanabe in view of Suzuki (EP 1077236 equivalent to U.S. 6,626,987) is respectfully requested.

The rejection of Claim 10(27) under Watanabe in view of Suzuki et al. (U.S. 7,208,229)(Suzuki '229) is respectfully traversed.

The deficiency of the primary reference is described above. Suzuki '229 is cited to show an alkylamine/Sb_2O_5 coating. However, Applicants respectfully submit that this secondary reference neither discloses nor suggests a hydrothermal treatment of the stannic oxide before mixing with zirconium oxide, as according to the claimed invention, and therefore does not repair the deficiency of the primary reference.

Applicants note that at Col. 5, line 66 and continuing to Col. 6, Suzuki '229 states:

> "Colloidal particles (a) of a metal oxide having primary particle diameters of from 2 to 60 nm may be produced by a known method such as an ion exchange method, a peptization method, a hydrolysis method or a reaction method."

Nowhere does this reference disclose or suggest a hydrothermal treatment of the stannic oxide before mixing with zirconium oxide.

Applicants respectfully submit that neither the primary reference nor either secondary reference describes a hydrothermal treatment of hydrothermal treatment of the stannic oxide before mixing with zirconium oxide, according to the claimed invention. Moreover neither reference discloses or suggests that the index of refraction of the coating obtained by application of the sol would be increased as discovered by Applicants. Accordingly, the cited combination of references cannot render the claimed invention obvious and withdrawal of the rejections of Claim 10 under 35 U.S.C. 103(a) over Watanabe in view of Suzuki ('229) is respectfully requested.

Applicants respectfully submit that Claim 27 of the above-identified application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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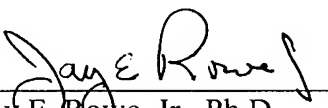
Norman F. Oblon



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